

REMARKS/ARGUMENTS

Favorable reconsideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

Claims 1-19 are presently pending in this application, Claims 5-18 having been withdrawn from further consideration by the Examiner, Claims 1-4 having been amended, and Claim 19 having been newly added by the present amendment.

In the outstanding Office Action, the specification was objected to for informalities; Claims 1-4 were rejected under 35 U.S.C. §112, second paragraph, for being indefinite; and Claims 1-4 were rejected under 35 U.S.C. §102(b) as being anticipated by Strandberg (U.S. Patent 6,323,435).

In response to the objection to the specification, the noted informalities have been corrected herein.

With regard to the rejection under 35 U.S.C. §112, second paragraph, Claims 1-4 have been amended to clarify the subject matter recited therein. Thus, Claims 1-4 are believed to be in compliance with the requirements of the statute. Also, these claim amendments are not believed to narrow the scopes of the claims. Additionally, Claim 19 reciting the “via hole” has been added herein. These amendments and addition in the claims are believed to find support in the specification, claims and drawings as originally filed, and no new matter is believed to be added thereby. If, however, the Examiner disagrees, the Examiner is invited to telephone the undersigned who will be happy to work in a joint effort to derive mutually satisfactory claim language.

Before addressing the rejection based on the cited reference, a brief review of Claim 1 as currently amended is believed to be helpful. Claim 1 is directed to a multilayer printed wiring board and recites: “a core substrate; a first conductive layer formed on the core substrate; an interlayer insulation layer formed on the first conductive layer and the core

substrate; and a second conductive layer formed on the interlayer insulation layer, wherein the first conductive layer on the core substrate has a thickness which is larger than a thickness of the second conductive layer on the interlayer insulation layer, and the first conductive layer on the core substrate has a side face which is tapered such that an angle, Θ , formed by a straight line connecting the top end and bottom end of the side face of the conductive layer and a horizontal face of the core substrate satisfies $2.8 < \tan \Theta < 55$.”

The outstanding Office Action states that Claim 1 is anticipated by Strandberg. Applicants, however, respectfully submit that Strandberg does not teach or suggest “a first conductive layer formed on the core substrate ...; and a second conductive layer formed on the interlayer insulation layer, wherein the first conductive layer on the core substrate has a thickness which is larger than a thickness of the second conductive layer on the interlayer insulation layer, and the first conductive layer on the core substrate has a side face which is tapered such that an angle, Θ , formed by a straight line connecting the top end and bottom end of the side face of the conductive layer and a horizontal face of the core substrate satisfies $2.8 < \tan \Theta < 55$ ” as recited in Claim 1. Specifically, the Office Action states that “thickness measured in figures is about 6.5 mm [for the conductive layer on the core substrate] and 3.5 mm [for the conductive layer on the insulation layer], which meets the limitations.” Nevertheless, Strandberg specifically states that the conductive traces 14a , 14 b in Figs. 1-5 typically have a thickness in the range of $20\ \mu\text{m}$ to $30\ \mu\text{m}$.¹ Similarly, referring to Fig. 6 in Strandberg, the measurements of the conductive layers on the core substrate and the insulation layer would be 6.5 mm and 3.5 mm, respectively, if the drawing in Fig. 6 is measured as in the Office Action, but Strandberg again specifically states that the wiring pattern on the substrate 112 has a thickness in the range of $10\ \mu\text{m}$ to $20\ \mu\text{m}$.² That is, despite

¹ See Strandberg, column 8, lines 4-9.

² See *id.*, column 9, lines 16-23.

the fact that the conductive traces in Fig. 3 and the conductive pattern in Fig. 6 ought to have different thicknesses, they are drawn as having the same thickness in the drawings. Thus, it is evident that the figures in Strandberg are not drawn to represent any scales comparable to their actual embodiments. Nor does Strandberg include such an indication. Consequently, nowhere is Strandberg believed to teach or suggest the thickness relationship or the angle θ as recited in Claim 1. Moreover, according to Strandberg, it is believed that the conductive pattern on the surface 112a of the substrate 112 should be made much thinner with much less filler to provide a lower dielectric constant to the structure and thus a lower impedance.³ As such, it is believed that Strandberg teaches away from the “first conductive layer on the core substrate [which] has a thickness which is larger than a thickness of the second conductive layer on the interlayer insulation layer.” Therefore, the structure recited in Claim 1 is clearly distinguishable from Strandberg and is not anticipated thereby. Furthermore, because Strandberg fails to disclose the conductive layers as recited in Claim 1, its teachings are not believed to render the structure recited in Claim 1 obvious.


For the foregoing reasons, Claim 1 is believed to be allowable. Furthermore, since Claims 2-4 and 19 depend from Claim 1, substantially the same arguments set forth above also apply to these dependent claims. Hence, Claims 2-4 and 19 are believed to be allowable as well.

³ See Strandberg, column 9, lines 23-34.

In view of the amendments and discussions presented above, Applicants respectfully submit that the present application is in condition for allowance, and an early action favorable to that effect is earnestly solicited.

Respectfully submitted,

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